



Declaration

UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of;

Ophira and Dov Aharanson

Serial No. 08/729,341

Art Unit: 2675

Filed: 10/16/1996

Examiner: Nguyen, Chanh Duy

For: METHOD OF AND STATION FOR INTEGRATED TYPED DATA AND
OPTICALLY SCANNED DATA CAPTURE FOR COMPUTER INTERFACING
AND THE LIKE

Declaration of Ralph Rodriguez

Ralph Rodriguez of Boston, Massachusetts, declares as follows:

1. My name is Ralph Rodriguez, and I am a graduate computer engineer (U.S. Army Institute, IESE Business School, and MIT Sloan graduate school) who has been practicing my profession since the early 1980's, providing computer system engineering and design to the United States Army and to service corporate enterprises, including serving as Chief Information Officer and VP of C- Bridge Internet Solutions, Inc., and Excelon Corporation VP & CIO, and as consultant to Motorola, Seagate, Lucent, AT&T, Citibank and others; teaching the same at Massachusetts Continuing Education, Comdex and MIT Sloan School; serving currently as Chief Technical Officer and President of New Technologies Inc. of Boston, Massachusetts since 1993; lecturing widely at computer conferences all over the country and abroad; and having authored four books in the field, including *Windows NT Security* and *Computer Incident Security Handling*, published by Sans Institute.
2. As an inventor, I am strongly supportive of helping to improve the competence of the United States Patent and Trademark Office to deal with computer and software technology, as to which the Office has relatively recently been receiving strong criticism

from industry and academic institutions. In some of my inventive activities, I have been represented by counsel of record in the above-entitled application, Dr. Robert H. Rines; also having formally been a graduate student in his courses on patents and in entrepreneurship at the Massachusetts Institute of Technology.

3. Said counsel, at the request of the applicants in Israel, asked for my voluntary technical opinion and assistance in connection with technical rulings of the Patent Office in the above application, and, in particular, the holdings in the Office action of July 28, 2003, which I have carefully studied together with the application disclosure and history and which I thoroughly understand. For convenience and clarity, I shall hereinafter refer to column and line references in the printed parent patent of applicants, US patent 5,477,238, which is identical to the typed specification of the above divisional application.

4. While I have absolutely no financial or other interest in said application or the invention described and claimed therein, and have absolutely no connection with the applicants (never having even met or talked to them) and am receiving absolutely no compensation for such study or opinion, I have been so shocked at the lack of Patent Office apparent understanding of the technology of said application in the era of its filing, and of the meaning of the descriptions and language used therein, that, in the interest of trying to provide to the Patent Office learning assistance for the benefit of all inventors in this field, I have been moved to provide this declaration and its technical clarification. (After all, the next time it may be one of my patent applications that is similarly rejected for lack of appropriate technical Office understanding in this field).

5. Specifically, the Examiner has rejected applicants' claim 1 copied from the Cotte et al US Patent No. 5,499,108 (and other claims) upon the ground that allegedly there is no description in applicants' application that supports the recitation in the claim(s) that

a) "the placement alone [of the document in the scanner] is sufficient to initiate said drawing" [of the document into the scanner for scanning], or of

b) "means for displaying, in response to send placement, a plurality of user-selectable options for processing said image data "(bottom of page 2 of the Office action).

6. As one of considerable skill and practical experience in this art, and certainly as of the 1992 era of the original application when the words and even description therein were drafted and reference made to the computer-scanner communications and protocols then existing in the art, I must assert, with respect, that the above statements of the Office are absolutely and unequivocally technically totally inaccurate.

7. The specification of said application clearly describes to me and to anyone else skilled in this art (and probably just anyone who has used a scanner, whether "skilled" or not), a "Master" mode of operation wherein the scanner initiates and controls the host computer display in the protocol initiation -- and specifically requires that the scanner be set into operation and the communication and protocol with the computer be started, "simply by" (column 6, lines 17, 18) the act of "inserting a document into the scanner feeding slot 14".

8. Long before the filing of the above application, hundreds of thousands of scanners interfaced or communicated with host computers all over the world, -- and for three basic and universal thoroughly well-known protocols: (1) for instant automatic display of the scanned information data signals on the computer screen; and/or (2) for storing and memory for later display, and (3) for a menu of user-selectable options or functions indicated on the display. Everyone skilled in this art knows (and certainly knew at the time of the filing of the above application) that this is how scanners in 1992 *always* communicated with computer displays -- every one of the scanner modules identified at the top of column 2 (lines 1-6), and every one of their protocols with the "IBM PC" host computer of the era (column 1, line 43).

Usually, however, the scanner was the "Slave" and was set into scanning operation by the command of the "Master" -- the computer.

One of the ingenious inventive concepts of the above application was to *reverse* this situation, and make the scanner the "Master" and cause it to initiate the setting up of communication and the above protocol in the computer for the computer display (now the "Slave") -- and to do this, by having the "Master" scanner being set into operational scanning and the computer protocol initiated "simply by" the act alone of the insertion of the document into the scanner!

9. The Examiner appears correctly to understand that "the specification discloses a master mode in which the scanner automatically starts scanning" (page 3, item (b)); but the Examiner alleges, page 2,

First, "there is no description in the specification to support the feature of the placement *alone* is sufficient to initiate said drawing" of the document through the scanner; and

Second, "there is no description in the specification to support ... means for displaying, in response to said placement, a plurality of user-selectable options for processing said image data".

10. Treating with the first alleged lack of description (i.e. that the specification does not teach that "the placement alone is sufficient to initiate said drawing" of the document through the scanner, the Examiner, with respect, is absolutely in error!

This is *exactly* what one skilled in this art understands to be described in column 6, lines 16-19;

"The user starts the scanning process... simply by inserting a document into the scanner feeding slot 14 (master mode)."

More than just initiating the feeding and scanning of the document through the scanner, this act of "inserting the document into the scanner," also automatically "initiates communications protocol with the host computer" (column 6, line 31.), which is then "used as a slave output device for display communication and printing" (column 8, lines 2-5 -- incidentally describing *two* distinct user-selectable options).

11. The application, as before indicated, clearly teaches, moreover, that it is precisely the same computer communications and protocol that is initiated whether the keyboard part of the integrated keyboard-scanner connects to the computer, or the scanner part is so connected (column 6, lines 7-10 and column 8, lines 2-7).

The specification, moreover, also specifically references such "host computer...display of scan status and modes", and the very same display is used in the "communication with the computer by both the keyboard and the scanner". (col. 4, lines 20-27).

The Office, page 3 of the Office action, has incorrectly stated that "the specification does not disclose a menu displayed on the screen".

As one skilled in this art, reading the application and including the reference to "menu" in column 7, line 52 and knowing that, as before stated, in the port connection of all scanners to "IBM PC" computers in that era (column 6, lines 7-10), protocol universally involved initially and automatically displaying the menu on the computer screen upon hook-up to the scanner, I must strongly state that the specification thus positively provides such a teaching, and that such display of the menu on the screen was also inherent for all scanner-computer connection protocol.

12. As I read the Office action page 3, the suggestion that the menu "May be placed on the keyboard", with respect, borders on the ludicrous, and has no basis whatsoever in the description of the operation of the application, and, indeed, is contrary to the established and universal operation of scanners with computers in the era of the filing of the application.

13. The underlying teaching of applicants' patent is predicated on an integration of the scanner into the conventional keyboard interface as a keyboard-scanner, interfacing with a host computer. The keyboard is shown in Fig. 6 as provided along the top with 12 "special function keys" -- the term "functions" meaning the same thing in the art, as the words "a plurality of user-selectable options" of claim 1. The way the user knew which functions or options to select was by means of viewing the conventional and standard "menu" (col. 7, line 52) always displayed on the computer upon interfacing with the keyboard, as part of the keyboard-computer standard initial protocol.

Though the Examiner shows no apparent familiarity with this state-of-the-art in 1992, such "protocol" for selecting a function or option was to automatically provide such menu of options on the computer display as an element of the initial "communication and protocol" with the computer, so as to enable the keyboard operator to view the same and make a selection on the keypad of the desired function (or option) key -- there not yet being "point and click" facility available at that time. Without this inherent menu display on the computer screen, the user had no information on which to select an option or function.

The application teaches, moreover, that precisely this same menu display protocol was then the conventional operation with all scanners, also (column 7, line 51, on; also column 4, lines 20-27).

14. But the application went much further. Such prior scanners generally operated in "the 'slave mode' of operation... (where) the user needs to know how to operate the computer and its software applications. There are cases where a user is not familiar with computers".

The applicants therefore created the before-mentioned "master mode", which "enables untrained people easily to operate the computer". "In this mode of operation, the master device is the keyboard-scanner of the invention, and the computer is used as a slave output device for display communication" (column 8, lines 2-5).

Without the displayed menu of functions or options, the user has no way to operate the functions (option) keyboard of Fig. 6, and such menu display was always an element of the "protocol" --set up, in accordance with applicants' invention, by the insertion of the document into the scanner.

15. The Office, moreover, appears also to have ignored the disclosure in the drawings of the application -- in particular, the flowchart of Fig. 7C. To one skilled in the art, including myself, it is unambiguously there-disclosed that, once put into the before-described "Master" mode (upper block "' MASTER OPERATION MODE"), there is automatic sending of operational code to the computer (block "SEND 'KB-MASTER'

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CODE TO HOST"); and, after confirmation of communications initiation is acknowledged by the computer (block "ACK' RECEIVED), the instruction is automatically sent to the computer for the first item of the "protocol" -- the display of menu (block "SEND TO HOST ' DISPLAY STATUS' COMMAND). To one skilled in the art, this clearly means the display of a menu of options or "functions" as applicants describe them, several of which are shown in Figs. 7D-G -- all appearing on the "DISPLAY", and the protocol establishing them, having been initiated by the insertion of the document into the scanner.

16. Apparently appreciating the weakness of the proposition that, contrary to the express and inherent teachings of the application, the menu might be "placed on the keyboard", the Office has held (page 3) that

"Even (if) the menu of the specification is displayed on the monitor" (and above I have shown such to be the case), the specification does not disclose the limitation "means for displaying , in response to said placement".

This, again, is entirely in error.

As I have earlier shown, there is a clear teaching in the application to one skilled in this art that the "'MASTER' OPERATION MODE" of Fig. 7C, before-discussed, is in fact initiated "in response" to the placement of the document in the scanner:

"The user starts the scanning process... simply by inserting a document into the scanner feeding slot 14 (master mode)". (col. 6, lines 17-19).

Not only does such "inserting" "start(s) the scanning process", [or in the words of claim 1, "said placement alone is sufficient to initiate said drawing through the scanner so that it "generates image data"], but the application specifically also teaches that, as "the scanner automatically starts scanning", it also

initiates communications protocols with the host computer", "outputting the... document-scanned data" (col. 6, lines 8, 9) such that "the host receives the scanned data" (col. 6, lines 30-32).

To one skilled in this art, this precisely and clearly discloses the limitations of claim 1 that "said placement alone is sufficient to initiate said drawing". This also precisely and clearly discloses that "the computer comprises(ing) means for displaying in response to said placement... for processing said image data".

This only leaves the matter of whether this "displaying" is of "a plurality of user-selectable options".

17. I have earlier explained that as one skilled in this art and with knowledge of the 1992 era of the filing of the application, the "communication protocol" between all scanners and computers (col. 6, lines 7-10), all provided all three: a display of the scanned data, storage "into a 'spool' directory... for application to retrieve it for subsequent display (col. 6, lines 32, 33), and the "menu" display of special functions" (col. 7, line 52) or options for user selection, as with the 12 function (option) keys of Fig. 6 before discussed.

The specification abounds with illustrations of these options, generally defined as "for display communication and printing" (col. 8, lines 4 and 5). In the "master" mode, indeed, "the keyboard-scanner device can function as three totally different devices... where the keyboard scanner is the master device and the computer is used (transparently to the user) as a slave output device".

Options for selection also include "fax/copy" machine functions, Fig. 6, with predefined functions... found on any fax or copy machine".

The application makes it quite clear, furthermore, that "it may also use the computer display to display the dialed number, the transmitted fax status information, and operating instructions, Figs. 7C, 7D, 7E, 7F", wherein the scanner "initiates a protocol with the computer to activate a special application which receives the scanned data from the scanner and prints it on the printer, Figs. 7C, 7D, 7G".

With the insertion or placement of the document in the scanner in the "Master Mode", (col. 8, line 3, on) initiating the display communication protocol, including "SEND TO HOST 'DISPLAY STATUS' COMMAND" (Fig. 7C, before discussed), this causes the displaying of the universal protocol options menu, always provided in the 1992 era by scanner-computer interfacing.

This, to one skilled in the art including me, is also explained in paragraph 9 above, and clearly means the display by the computer monitor of "a plurality of user-selectable options for processing said image data "of claim 1 – and it certainly is taught in the application, as initiated in the application by placement alone of the document into the scanner.

18. The objectives and basic implementation of applicants and of Cotte et al are the same; and claim 1, above-discussed, certainly applies equally to their respective disclosures and in the same way.

19. In summary, therefore, it is the placement of the document into the scanner slot of applicants' scanner that alone initiates the scanning, and alone starts the communication protocol, including display for user-selection of options.

This is also made extremely clear in connection with the description of the options of "fax/copy":

"When operating in "master mode" ...when the user inserts a document into the document feeding slot 14, a sensor 4, 4a, senses the document and converts the operation of the device...where the keyboard-scanner is the master device and the computer is used (transparently to the user) as a slave output."
(Column 8, line 5, on).

"The user inserts a document into the scanner input slot 14. The inserted document moves the mechanical arm 4A of the document sensor 4. The sensor sets flag "MASTER" ON...and starts a communication protocol with the host computer...It may also use the computer display to display...status information, and operation instructions, FIGS 7C, 7D, 7E, 7F." (Column 8, line 33, on).

And earlier, for just document scanning and the options of image display and storage:

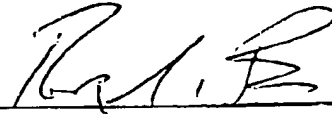
" The user starts the scanning process...simply by inserting a document into the scanner feeding slot 14 (master mode)...the scanner automatically starts scanning, initiates communications protocol with the host computer and the host receives the scanned data into a 'spool' directory where it is stored for application to retrieve it..." (Col. 6).

The running display of scanned image data and storage are, of course, and were in 1992, the standard computer-scanner protocol, inherent in all such systems.

To one skilled in the art, including me, this unambiguously teaches the specific limitations of claim 1:

"wherein said placement alone is sufficient to initiate said drawing, and said computer comprising means for displaying, in response to said placement, a plurality of user-selectable options for processing said image data".

Being hereby warned that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 USC 1001, and that such willful false statements may jeopardize the validity of the application or any resulting patent, I declare that the facts set forth in this application are true; all statements of my own knowledge are true; and all statements made on information and belief are believed to be true.



Ralph Rodriguez

Date: January 23, 2004